

## Arson Closure Rate

Over the years, there has been much debate over arson closure rates, and how to determine the rate, what to include and what not to include when calculating the number. It has been calculated in many differing ways, and if there is not consistency in how it is calculated it is meaningless. Likewise, if the numbers are not representative of what is actually occurring, they can be misleading.

The city administrator's office utilizes two measures from the Fire Prevention Division for benchmarking with the ICMA, Arson Case Closure Rate, and Civilian Fire Deaths.

The reported arson case closure rates are provided and recorded as follows by the CA's office:

FY 2005- 32%

FY 2006- 20%

FY 2007- 18%

FY 2008- 25%

FY 2009- 33%

FY 2010-38%

FY 2011- Not Calculated

FY 2012- Not Calculated

We look to the NFPA 921 classifications for fire causes, Accidental, Incendiary, Natural, and Undetermined. Typically, we look at fires with a cause of "incendiary", defined as "deliberately ignited under circumstances in which the person knows that the fire should not be ignited". This helps us to understand the issue, but not all fires determined to be incendiary are arson fires. As an example, if a child is playing with a match or lighter, and ignites combustible material causing a fire, the fire could be determined to be incendiary. The intent to deliberately and maliciously ignite the fire is absent (arson), however the fire cause is still "incendiary".

Typically, within DCFEMS, we have calculated the arson case closure rate in the following manner:

**# of arson and arson related arrests / # of arson fires + # of incendiary fires (Structure and other fires)**

**NOTE: All calculations exclude vehicle fires.**

The above methodology assumes a case closure with an arrest, not a conviction. A separate measure should be the # of arson arrests / #of arson case convictions. This is a strong measure of the work that was done, and a measure of the quality of the work. Many will argue that this is out of the investigators control.

Utilizing the above methodology, the annual reports for the fire investigations unit were re-visited and the calculations done from FY 2005 through FY 2012 with the following results:

FY 2005-	39%	51 Arrests/129 cases
FY 2006-	17.3%	28 Arrests/161 cases
FY 2007-	17.6%	23 Arrests/130 cases
FY 2008-	9.4%	16 Arrests/169 cases
FY 2009-	19.5%	35 Arrests/179 cases
FY 2010-	25%	37 Arrests/145 cases
FY 2011-	10.4%	13 Arrests/124 cases
FY 2012-	9.6%	11 Arrests/114 cases

The one issue that has not been communicated after much back and forth on the topic, is the actual parameters of the ICMA definitions for the measure. In order to benchmark the Arson case closure rate, there must be a standard formula of how to construct the benchmark number, so that an apple to apples comparison is being done. I have previously asked this same question.

This is a cause worthy of accuracy so that the numbers have value, and meaning, therefore, I am again asking for the methodology ICMA recommends to calculate this percentage.

## **Civilian Fire Deaths**

### **Narrative Update:**

An analysis of the multi-year trend in deaths caused by fire in the District of Columbia shows that fire continues to be a significant risk to residents. Most civilian fire deaths occur in homes or apartments that lack automatic fire sprinklers and working smoke alarms. Installation of these fire protection measures in residential occupancies dramatically reduce the risk of death and injury by fire or the by-products of fire, such as smoke, soot, and toxic gases. Civilian fire deaths are an extremely volatile statistic, particularly in the short term. An individual year's data can be skewed by a single, multi-fatality fire incident. This is evident in the FY 2009 statistics when one fire claimed 6 victims. This statistic can nevertheless be a useful indicator when trends are

analyzed over longer periods of time. Over the period shown, the District averaged approximately 14 civilian fire deaths per year. Given the number of older homes, and often their close proximity to each other, fire safety and preventive measures are paramount to public safety. In the period from 2005 through 2012, there was only one fire fatality not occurring in a residential occupancy. Of the fatal fires during this time, 68% occurred in one and two family homes, and 32% occurred in multi-family occupancies. The victims were seniors (52%), Adults (37%), and children (11%).

During FY 2012, DC Fire and EMS has continued installing smoke and carbon monoxide alarms as part of the Asia Sutton Smoke Alarm program. Utilizing a Department of Homeland Security Grant, through the Institute of Fire Engineers, the department was able to perform 1403 home visits, providing fire safety literature and home escape plan information, while installing 2792 smoke alarms.

The department responded to 167,810 incidents in FY 2012. This included 139,231 medical responses, and 28,579 fire related incidents. There were 1,164 fires that were extinguished during FY 2012.

Add to graph:

FY 2012      5 Civilian Fire Deaths

FY 2013      6 Civilian Fire Deaths (As of 2-20-13)